

CLAIMS

1. A polynucleotide in substantially isolated form capable of hybridising selectively to Seq.ID No. 1 or to its complement.
2. A polynucleotide according to claim 1 which comprises of Seq.ID No. 1 or a fragment thereof.
3. A polynucleotide probe which comprises a fragment of at least 15 nucleotides of a polynucleotide as defined in claim 1 or 2.
4. A polynucleotide in substantially isolated form comprising Seq.ID No. 3 or its complement.
5. A polypeptide in substantially isolated form which comprises either of the sequences set out in Seq ID Nos. 2 or 4 polypeptide substantially homologous thereto, or a fragment of the polypeptide of Seq. ID No. 2.
6. A polynucleotide in substantially isolated form encoding a polypeptide according to claim 5.
7. A vector carrying a polynucleotide as defined in claim 1, 2 or 6.
8. An antibody capable of binding the polypeptide of Seq. ID. No. 2 or fragment thereof.
9. A method for detecting the presence or absence of a polynucleotide as defined in claim 1 in a human or animal body sample which comprises:  
    bringing a human or animal body sample containing DNA or RNA into contact with a probe comprising a polynucleotide or primer as defined in claim 1 under hybridizing conditions; and  
    detecting any duplex formed between the probe and nucleic acid in the sample.

10. A method of detecting polypeptides as defined in claim 6 present in biological samples which comprises:
- (a) providing an antibody according to claim 7;
  - (b) incubating a biological sample with said antibody under conditions which allow for the formation of an antibody-antigen complex; and
  - (c) determining whether antibody-antigen complex comprising said antibody is formed.
11. An assay method for screening candidate substances for anti-cancer therapy which comprises:
- (a) providing a polypeptide of the invention which retains lipid kinase activity and a substrate for said kinase, under conditions and with reagents such that the kinase activity will act upon the substrate;
  - (b) bringing said polypeptide and substrate into contact with a candidate substance;
  - (c) measuring the degree of decrease in the kinase activity of the polypeptide; and
  - (d) selecting a candidate substance which provides a decrease in activity.
12. An assay method for screening candidate substances for anti-cancer therapy which comprises:
- (a)
    - (i) incubating a polypeptide of the invention with another as polypeptide of the invention, which may be the same or different to the first polypeptide, under conditions which allow the first polypeptide to bind to the second polypeptide to form a complex;
    - (ii) bringing the complex thus formed into contact with a candidate substance;
- or
- (a) incubating a polypeptide of the invention with another polypeptide of the invention, which may be the same as or different to the first polypeptide, under conditions which allow the first polypeptide to bind to the second polypeptide to form a complex and in the presence of a candidate substance;
- and

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- (b) determining whether the candidate substance inhibits binding of the first polypeptide to the second polypeptide and
  - (c) selecting a candidate substance which inhibits binding of the first polypeptide to the second polypeptide.
13. A method according to claim 12 wherein said first polypeptide can be distinguished from said second polypeptide.
14. A method of treating cancer in a patient which comprises administering to said patient a therapeutically effective amount of a candidate substance selected according to the method of any one of claims 11 to 13.
15. A method of increasing the susceptibility of cancer cells in a patient to chemotherapy and/or radiotherapy which comprises administering to said patient a therapeutically effective amount of a candidate substance selected according to the method of any one of claims 11 to 13.
16. Use of a candidate substance selected according to the method of any one of claims 11 to 13 for the treatment of cancer.
17. Use of a candidate substance selected according to the method of any one of claims 11 to 13 for increasing the susceptibility of cancer cells to chemotherapy and/or radiotherapy.